

Fig. 1

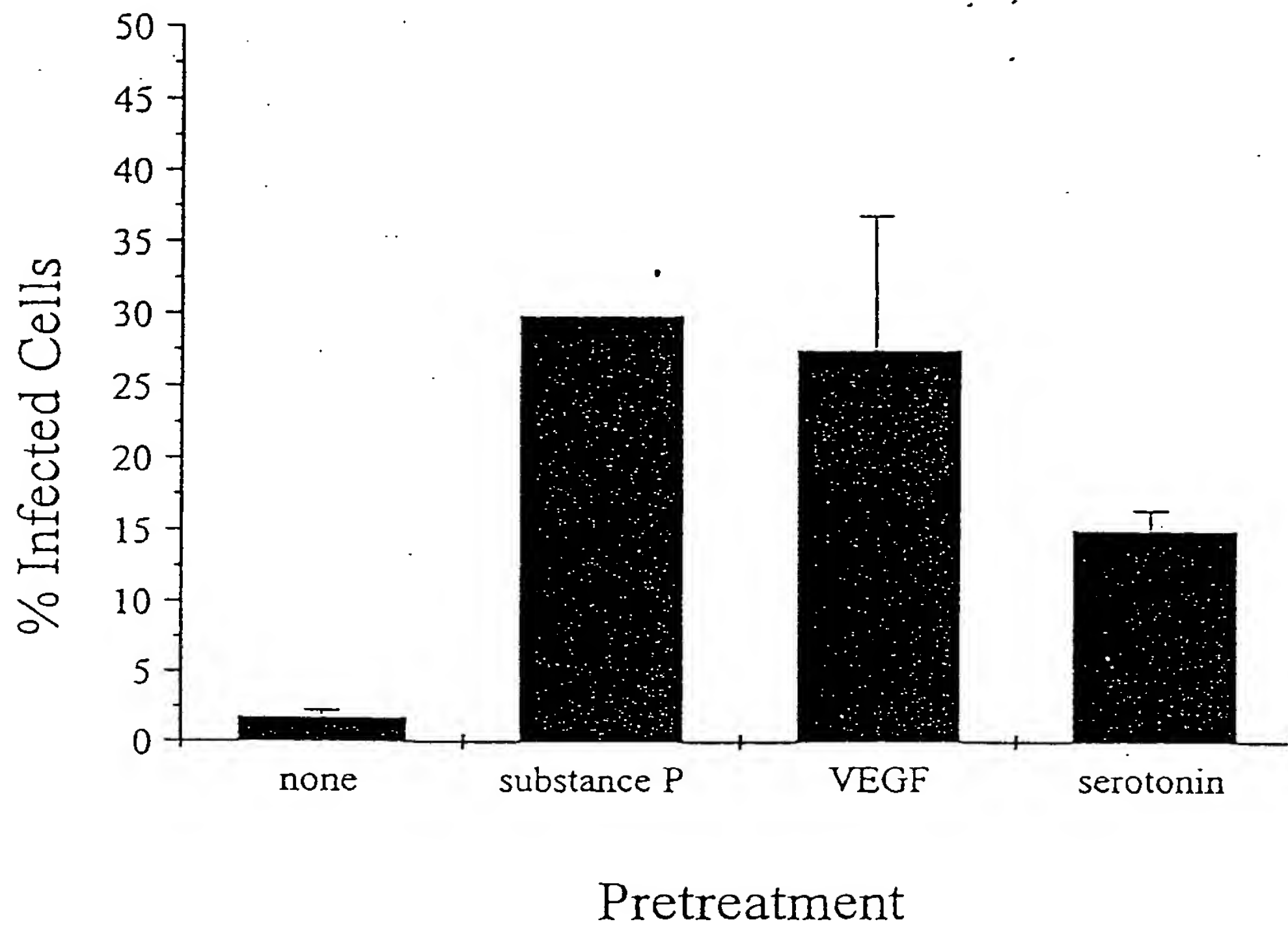


Fig. 1. Effect of pretreatment on adenoviral gene transfer. *Ex vivo* perfused hearts were exposed to substance P (1×10^{-7} M, 30 sec), VEGF (1×10^{-9} M, 2 min) or serotonin (1×10^{-5} M, 15 min) before 2 min Ad β gal infection (1×10^8 pfu/ml). $n = 3$ for each, except $n = 1$ for substance P.

Fig. 2

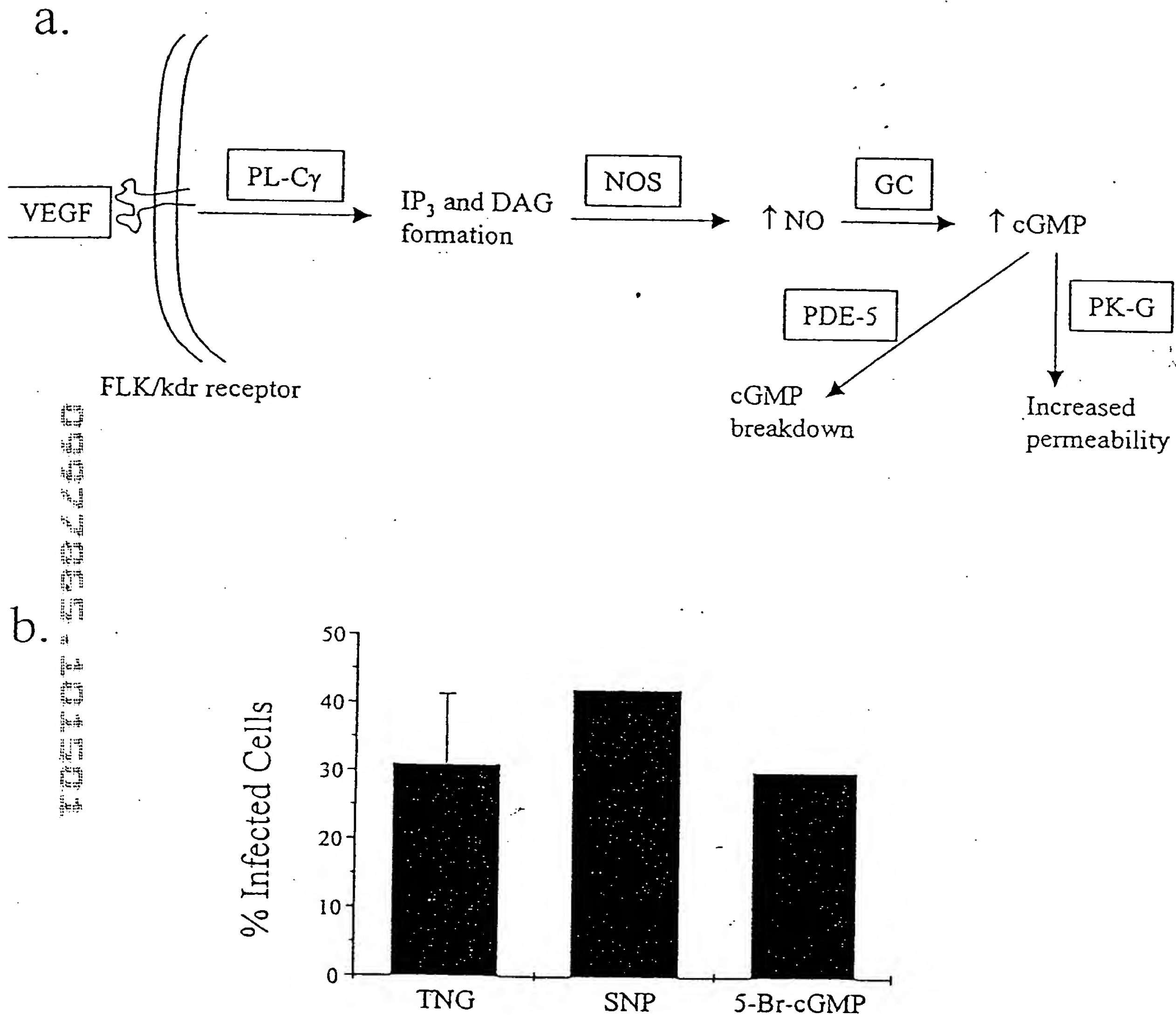


Fig. 2. Investigation of intracellular pathways mediating increase in vascular permeability and gene transfer. a. Schematic of intracellular pathway responsible for increases in vascular permeability. b. Effect of perfusion with nitroglycerin (TNG) or nitroprusside (SNP) or with 5-Br-cGMP on adenovirus-mediated gene transfer. TNG and SNP increase intracellular NO, and 5-Br-cGMP increases intracellular cGMP. $n = 4$ for TNG and $n = 1$ for SNP and 5-Br-cGMP. Abbreviations: PL-C γ : phospholipase C- γ , NOS: nitric oxide synthase, PDE-5: phosphodiesterase 5, GC: guanylate cyclase, PK-G: protein kinase G

Fig. 3

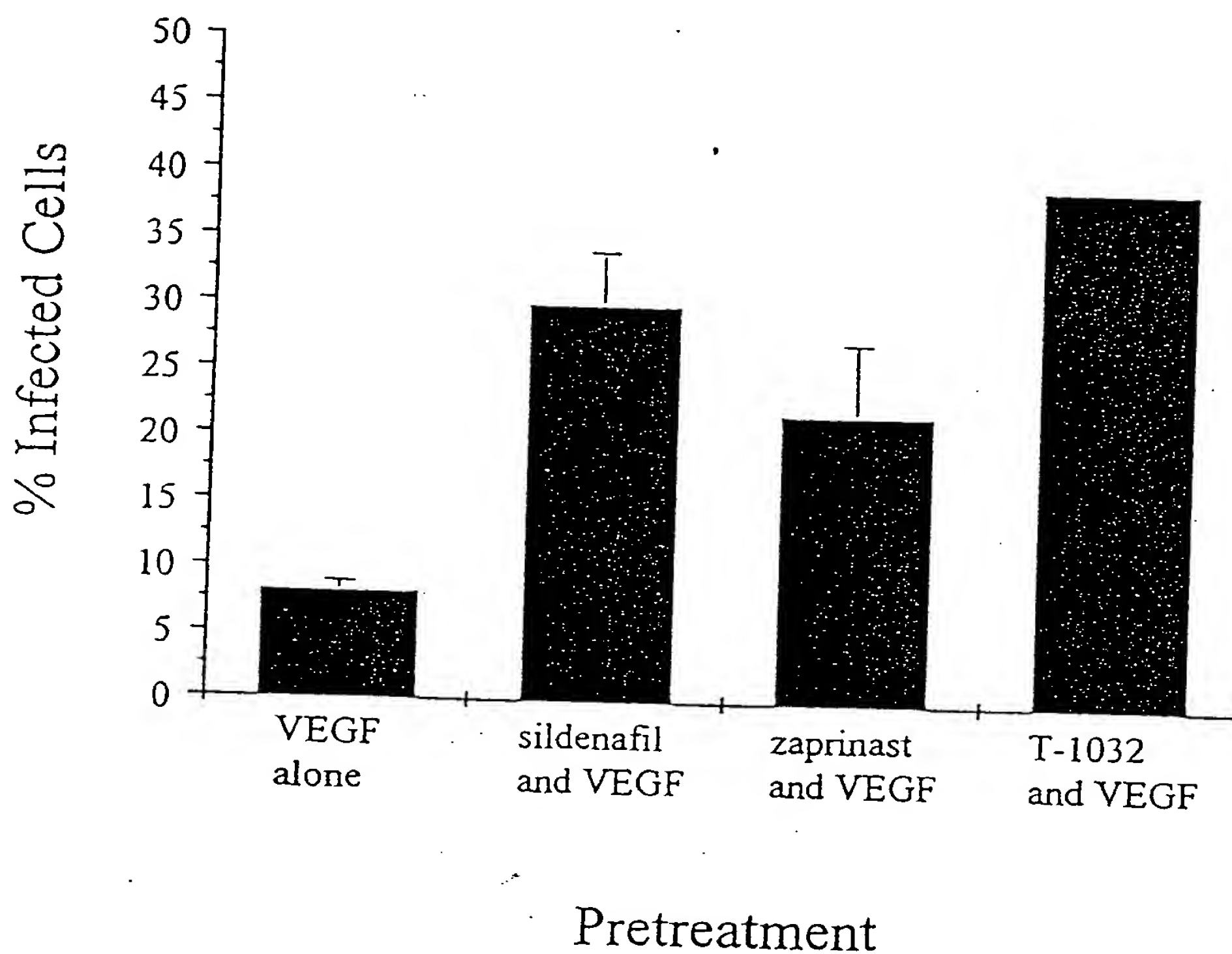


Fig. 3. Effect of phosphodiesterase 5 inhibition on adenoviral gene transfer. *Ex vivo* perfused hearts are exposed to VEGF (0.3×10^{10} M, 2 min) alone or after 15 min exposure to the PDE-5 inhibitors sildenafil (1×10^{-5} M), zaprinast (1×10^{-5} M) or T-1032 (1×10^{-6} M). Hearts were then exposed to Ad β gal (1×10^8 pfu/ml, 2 min), and the percentage of cells receiving the transgene was quantified. $n = 3$ for each except $n = 1$ for T-1032.